

WHAT IS CLAIMED IS:

1. A solid state image pickup device ,wherein
one unit pixel is composed of an input signal
converting section and CCD electric charge transfer means,
the input signal converting section is provided with at
least one opening region for receiving light,
the input signal converting section is arranged in an
X-Y two-dimensional array form,
a transfer electrode of the CCD electric charge
transfer means provided in Y-direction adjacent to the input
signal converting section has such electrodes constitution
that four electrodes are provided for the one unit pixel,
and totally eight electrodes are provided for two unit
pixels continuous in the Y-direction, and
the eight transfer electrodes are driven by an 8-phase
transfer clock pulse generated by a pulse generating
circuit.
2. In a solid state image pickup device drive method;
in a specified period represented by a field or frame

of a video signal,

with regard to a first pixel and a second pixel constituting two continuous unit pixels in a Y-direction, a first A signal charging period and a second A signal charging period shorter in time than the first A signal charging period are set up for the first pixel, and a first B signal charging period and a second B signal charging period shorter in time than the first B signal charging period are set up for the second pixel , and

when a start timing of the second A signal charging period is same as the start timing of the second B signal charging period, or even when they are different each other , the second A and second B signal charging periods have an identical duration.

3. A solid state image pickup device drive method as claimed in Claim 2, wherein

the second A and second B signal charging periods are controlled by effecting an electronic shuttering operation in the specified period represented by the field or frame of the video signal.

4. A solid state image pickup device drive method as claimed in Claim 2 or 3, wherein

among a first A signal charge obtained in the first A signal charging period, a second A signal charge obtained in the second A charging period, a first B signal charge obtained in the first B charging period, and a second B signal charge obtained in the second B charging period, the second A signal charge and the second B signal charge are read as a second AB signal charge by being mixed with each other, and the three signal charges of the first A, first B, and second AB signal charges are read independently.

5. A solid state image pickup device as claimed in Claim 1, wherein

the each sections are formed integratedly. ✓

6. A solid state image pickup device drive method as claimed in Claim 4, wherein

the second AB signal charge is read by a first HCCD, the first A signal charge is read by a second HCCD, and the

first B signal charge is read by a third HCCD to an external signal processing circuit in a same horizontal scanning period.

7. A solid state image pickup device drive method as claimed in Claim 4, wherein

the second AB signal charge is read by a first HCCD, and the first A signal charge and the first B signal charge are read by a second HCCD to an external signal processing circuit in a same horizontal scanning period.

8. A solid state image pickup device as claimed in Claim 1 or 5 comprising :

a signal decision circuit which is provided for HCCD output terminals and makes a decision of signal saturation based on a saturation or unsaturation condition of signals outputted from all or a part of signal output terminals , and

a signal selection circuit for selecting between the outputs of the HCCD output terminals according to a decision made by the signal decision circuit.